

REMARKS

Claim 1 is cancelled without prejudice or disclaimer. Claims 2-26 are added. After entry of this amendment, claims 2-26 will remain pending in the Application.

Claim 1 was rejected under the judicially created doctrine of obviousness-type double patenting.

Claim 1 has been cancelled without prejudice or disclaimer, thus rendering moot the rejection of claim 1.

Claim 1 was rejected under 35 U.S.C. §103(a) based on Sperling et al. (U.S. Pat. No. 4,655,594) (Sperling) in view of Wittekoek et al. (U.S. Pat. No. 4,655,594) (Wittekoek).

Claim 1 has been cancelled without prejudice or disclaimer, thus rendering moot the rejection of claim 1.

Claims 2-26 are added. Applicants respectfully submit that support for this claim may be found throughout the specification and that no new matter has been added.

It is respectfully submitted that claims 2-19 are patentable over Sperling because they recite a lithographic projection apparatus comprising, *inter alia*, an object table positioning system including a first side-beam, having a first slider mounted thereon, a cross-beam and a thrust bearing pivotally mounted to said first slider, said thrust bearing transmitting a force in said plane and substantially perpendicular to said first side beam between said cross-beam and said first side beam. As conceded by the Office Action, Sperling does not disclose an air bearing pivotally mounted to said first slider. As a result, Sperling does not teach each and every feature of claims 2-19 and, therefore, cannot anticipate those claims.

It is also respectfully submitted that claims 20-23 are patentable over Sperling because they recite a lithographic projection apparatus comprising, *inter alia*, an object table positioning system including first and second side-beams having respective first and second sliders mounted thereon, a cross-beam mounted near first and second ends thereof to said first and second sliders respectively, and a thrust bearing pivotally mounted to said first slider, said thrust bearing comprising a bearing assembly which acts against a bearing wall of said first side-beam. Sperling does not disclose an apparatus having, for example, a thrust bearing comprising a bearing assembly which acts against a bearing wall of said first side-beam. As a result, Sperling does not teach each and every feature of claims 20-23 and, therefore, cannot anticipate those claims.

Applicants point out that claims 24 and 25 are patentable over Sperling because they recite a method of manufacturing a device comprising, *inter alia*, positioning one of a mask

bearing moveable object table and a substrate bearing movable object table in a plane prior to or during said irradiating and imaging with a positioning apparatus including a first side-beam having a first slider mounted thereon, a cross-beam and a thrust bearing pivotally mounted to said first slider, said thrust bearing transmitting a force in said plane and substantially perpendicular to said first side beam between said cross-beam and said first side beam. As conceded by the Examiner, Sperling is silent about a thrust bearing pivotally mounted to said first slider. As a result, Sperling does not recite each and every feature of claims 24-25 and, therefore, cannot anticipate those claims.

Claim 26 is also patentable over Sperling for the same reasons provided above related to claims 1-19 or 24-25. That is, Sperling does not disclose a positioning apparatus comprising, *inter alia*, a thrust bearing comprising a bearing assembly which acts against a bearing wall of the first side-beam.

It is respectfully submitted that claims 2-26 are patentable over Wittekoek in view of the foregoing discussion. The Examiner's attention is directed to the fact that Wittekoek simply teaches that the driving elements 12 and 13 of the driving member 3 for the X-direction are pivotally secured to the driving members 4 and 5 for the Y-direction (see, Figure 1 and col. 2, lines 65-68). The air bearing in Wittekoek is provided between the support part 1 and carriage part 2. Wittekoek, however, does not teach or suggest providing a thrust bearing pivotally mounted to the first slider (which in Wittekoek most closely corresponds to driving element 4 or 5), the thrust bearing transmitting forces in the plane and perpendicular to the first side beam between the cross-beam and the first side beam (which in Wittekoek most closely corresponds to either shaft 9 or shaft 10). Applicants also point out that this reference does not teach or suggest either a thrust bearing comprising a bearing assembly which acts against a bearing wall of the first side-beam.

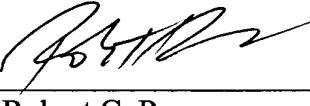
Accordingly, it is respectfully submitted that neither Sperling nor Wittekoek teaches or suggests, alone or in combination, the subject matter recited in claims 2-26. Therefore, Applicants respectfully submit that claims 2-26 are in condition for allowance.

Applicants have addressed all the Examiner's rejections and respectfully submit that the application is in condition for allowance. A notice to that effect is earnestly solicited.

If any point remains in issue which the Examiner feels may be best resolved through a personal or telephone interview, please contact the undersigned at the telephone number listed below.

Respectfully submitted,

PILLSBURY WINTHROP LLP

By: 

Robert C. Perez
Reg. No.: 39,328
Tel. No.: (703) 905-2159
Fax No.: (703) 905-2500

RCP/CFL
1600 Tysons Boulevard
McLean, VA 22102
(703) 905-2000